M. Harry Kane

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Education

Yale University | B.S. Chemistry (intensive track), expected graduation May 2018 | GPA: 3.6

Relevant Coursework in Physical Chemistry, Organic Chemistry, Physics, Multivariable Calculus, Java Programming, Micro & Macroeconomics, Cognitive Science, Advanced Spanish

Hopkins School | High School Diploma, June 2014 | GPA: 4.0

Varsity Crew Captain, Member of Sustainability and Disciplinary Committees, Science Olympiad

Experience

Yale Office of Undergraduate Admissions | Science Tour Guide, February 2016 – Present Lead tours of science facilities for prospective STEM students and families

Yale Department of Chemistry, Energy Sciences Institute | Student Researcher, April 2015 – September 2015

Research on developing and characterizing surface-bound Iridium water oxidation catalysts for solar energy conversion, member of the Brudvig Group

Yale School of Medicine, Department of Neurosurgery | Research Assistant, June 2013 – August 2014

Research on determining gene expression changes in animal models caused by MIF receptor mediating compounds following traumatic brain injury and epileptic seizures, member of the de Lanerolle Group

Breakthrough New Haven | Teacher-Intern, September 2012 – April 2014

Taught weekly math classes for underserved high-potential New Haven middle school students

Extracurricular Activities & Leadership

Freshman Outdoor Orientation Trips (FOOT) | March 2015 – Present

Backpacking trip leader for Yale pre-orientation programs, CPR and Wilderness First Aid certified **Branford College Housing Committee** | *January 2015 – Present*

Eight-member team appointed by dean responsible for assigning 300+ students to on-campus housing **Davenport Pops Orchestra** | September 2014 – Present

Conductor of 78-member symphonic orchestra, executive board member, violinist and arranger

Community Health Educators | September 2014 – Present

Health curriculum teacher in New Haven public high schools

Yale Undergraduate Science Olympiad | September 2014 – January 2015

Co-authored Forensics exam for 2015 Invitational Tournament, Event Supervisor

Skills & Interests

- Laboratory Techniques: IR/NMR/UV-Vis spectroscopy, surface chemistry (profilometry, sensitizations, and adsorption studies), organic synthesis and characterization, circuit construction & oscilloscope signal analysis, rodent surgery and handling procedures
- Computer Software and Languages: Java, Mathematica, GraphPad Prism, ChemDraw, MestReNova, LoggerPro, Ingenuity, MS Office, Logic Pro, Final Cut, Finale, Sibelius
- Music Production and Performance: Member of American Composers Forum, portfolio of works for instrumental ensembles, electronic music production and film scoring experience, classically trained violinist
- Sports: Rowing and squash (high school varsity teams), tennis, skiing

Publications

Materna, K.L., Rudshteyn, B., Brennan, B.J., **Kane, M.H.**, Bloomfield, A.J., Huang, D.L., Shopov, D.Y., Batista, V.S., Crabtree, R.H., & Brudvig, G.W., in preparation for submission to ACS Catalysis. Heterogenized Iridium Water Oxidation Catalyst from a Silatrane Precursor.

Recent Honors & Awards

Yale College Freshman Summer Research Fellowship in the Sciences and Engineering (2015), Rensselaer Medalist & Scholarship Award (2014), National AP Scholar (2014), Science Olympiad Forensics Connecticut State Champion and National Tournament Qualifier (2013-2014), Music Institute of Chicago Generation Next Medalist (2013)